

Claims

1. A radio communications system for transmitting same data to a plurality of cells via at least one base station, and
5 performing a soft combining or a selective combining on the same data received by a mobile station, the radio communications system comprising:

10 a transmission timing synchronization controlling unit configured to set up a cycle at which synchronization processing on transmission timing of the same data among the plurality of cells is performed, or an accuracy by which the synchronization processing is performed, for each control apparatus which performs the synchronization processing.

15 2. The radio communications system according to claim 1, further comprising:

10 a cell information managing unit configured to manage a base station, a radio network controller and a core network node which manages each of the plurality of cells; and wherein
20 the transmission timing synchronization controlling unit of a base station is configured to perform the synchronization processing by a first accuracy at a first cycle, when all of the plurality of cells is managed by the base station; and
25 the transmission timing synchronization controlling unit of a radio network controller is configured to perform the synchronization processing by a second accuracy at a second cycle, when all of the plurality of cells is managed by the radio network controller.

3. A control apparatus used in a radio communications system for transmitting same data to a plurality of cells via at least one base station, and performing a soft combining or a selective combining on the same data received by a mobile station, the
5 control apparatus comprising:

10 a transmission timing synchronization controlling unit configured to set up a cycle at which synchronization processing on transmission timing of the same data among the plurality of cells is performed, or an accuracy by which the synchronization processing is performed, for each control apparatus which performs the synchronization processing.

4. The control apparatus according to claim 3, further comprising:

15 a cell information managing unit configured to manage a base station, a radio network controller and a core network node which manages each of the plurality of cells; and wherein
the transmission timing synchronization controlling unit of the control apparatus of a base station is configured to perform the synchronization processing by a first accuracy at a first cycle, when all of the plurality of cells is managed by the base station; and

20 the transmission timing synchronization controlling unit of the control apparatus of a radio network controller is configured to perform the synchronization processing by a second accuracy at a second cycle, when all of the plurality of cells is managed by the radio network controller.